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For Official Use.

BOARD OF EDUCATION.

PROVISIONAL REGULATIONS
FOR EXAMINATIONS IN ART AND IN
SCIENCE AND TECHNOLOGY,
APPLICABLE TO THE
EXAMINATIONS OF 1912.



LONDON:
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.

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PRINTERS TO THE KING'S MOST EXCELLENT MAJESTY.

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PREFATORY NOTE.

IN the Prefatory Note to the Regulations for Technical Schools, &c., which came into force on the 1st August 1910, it was explained that those Regulations were limited to the determination of the conditions of grant, and that Parts II. to IV. of the 1910 Regulations would, therefore, continue in force until further notice was given. It was, however, intimated that there were then under consideration certain changes in regard *inter alia* to the Science and Art Examinations, and the Board have subsequently announced in Circular 776 changes affecting the Science Examinations to be brought into operation in 1912, and in Circular 786 changes in the Art Examinations to be brought into operation in 1913. The changes announced in these Circulars did not directly affect the conditions under which the Examinations were locally managed, and a separate announcement was made in Circular 785 of proposed modifications of these local arrangements. In Circular 789, however, notice was given that the Board propose to hold the Examinations in 1912 under the same local arrangements as heretofore, subject to an important modification affecting the scale determining the number of Superintendents required in relation to the number of candidates.

The Board think that it is now convenient to re-issue the Examination Regulations as they have been modified by the several Circulars above mentioned. The following Regulations accordingly set out the conditions under which Examinations in Science and Technology and in Art will be held in 1912. They replace those contained in Part II. of the Regulations for Technical Schools, &c., 1909-10, but they are necessarily provisional only, inasmuch as the Art Examinations will be completely recast next year, and it is probable that changes will also be made in the local arrangements. The Board, therefore,



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will in due course issue new Regulations to come into operation for the Examinations of 1913.

In the past the same series of Examinations has been taken both by candidates desiring merely to submit themselves to tests of the progress made by them in their studies, and by candidates who have been competitors for the various Scholarships or Exhibitions provided or administered by the Board. It has been customary for the Board also to allow the Examinations to be used as the basis for awarding Prizes or Scholarships provided locally, and, for this purpose, to furnish, on the application of Local Education Authorities or Bodies of Managers, lists in order of merit of candidates coming from particular areas or from particular Schools. It is obvious, however, that the examination of exercises worked by candidates for whom it is only necessary to announce whether they have passed or failed will not necessarily proceed on lines identical with those which must be adopted for the purpose of placing candidates in a competition in order of merit. In re-organising their arrangements for the Examinations in Science and Technology, the Board have, therefore, found it necessary to make arrangements of a special character for examining the exercises worked by candidates for those Scholarships, Exhibitions, and Studentships to which the "Regulations for Scholarships, Exhibitions, &c. in Science for the year 1912" are applicable. These arrangements are applicable only to exercises worked at the special Scholarship Examinations held for the purpose of these awards, and, in the ordinary course, arrangements of a different character, not in themselves sufficient for the determination of an order of merit, are applicable to the exercises worked in the General Examinations in Science and Technology. The General Examinations will not be available for determining the awards of the Scholarships, Exhibitions, and Studentships mentioned above, and will not be available for the awarding of other scholarships, prizes, &c. unless some special arrangements are made for the revision of exercises worked by the competitors. The Board will be prepared to make such special arrangements, provided that they are able to approve the conditions of the Award, which

must previously be submitted to them not later than the 1st May, and provided also that the promoters of the competition undertake to meet the extra cost involved in such special arrangements.

It will be observed that the scheme announced in Circular 776 has been modified in certain minor particulars. It is not proposed to require the production of evidence of practical work of candidates for admission to the Higher Examinations, and a personal Certificate will be issued to each candidate who is successful at either a Higher or a Lower Examination. These modifications of the scheme relate to 1912 only.

A. A. Selby-Bigge

7th March 1912.

BOARD OF EDUCATION.

Provisional Regulations for the Examinations in Art and in Science and Technology.

1. Examinations will be held by the Board in 1912, in Art and in Science and Technology, under the conditions stated in these provisional Regulations which supersede those contained in Part II. of the Regulations for Technical Schools, &c., 1909-10, which are hereby cancelled.

The Examinations in Art in 1913 will be held in accordance with the scheme announced in Circular 786, and the Board will in due course issue new Regulations, giving effect to those changes, and to such changes as it may be decided to make in the arrangements for the local management of Examinations.

ART.

2.--(a) The subjects of Examinations in Art are—

Freehand Drawing in Outline.
Model Drawing.
Drawing in Light and Shade from a Cast.
Geometrical Drawing.
Perspective.
Memory Drawing of Plant Form.
Drawing of Common Objects from Memory.
Anatomy.
Drawing from the Antique.
Drawing the Antique from Memory.
Drawing from Life.
Painting from Still Life.
Painting Ornament.
Historic Ornament.
Principles of Ornament.
Design.
Architecture.
Architectural Design.

(Continued over)

2. (a)—(*cont.*)

Modelling from the Antique.
 Modelling the Head from Life.
 Modelling from Life.
 Modelling Design.

(b) There are three Stages of Examination in Design, viz.:—Stage 1, Stage 2, and Honours. There are two Stages of Examination in Modelling Design, viz.:—Stage 2 and Honours. The other subjects are not divided into Stages for the purpose of Examinations.

(c) The Examinations in Art in 1912 will be based upon the syllabuses contained in the volume of "Syllabuses applicable to Technical Schools, Schools of Art, &c., 1910-11."

(d) The days and hours of the Examinations are shown in the corrected Time Table (*see the Appendix*).

3.—(a) The Examinations in Art are intended for registered students in Art, or for teachers, in Schools recognised by the Board under the Regulations for Technical Schools, &c. A candidate may be examined in any subject for which he is presented by the Managers of the School in which he is a registered student.

(b) Other persons may, if eligible, be admitted as "External" candidates under the conditions specified in Regulation 24 below; but no boy or girl is eligible who has been in attendance at a Public Elementary School at any time in the six months immediately preceding the Examination, and Pupils under 15 in a Secondary School, Pupil-Teachers, Pupils in Preparatory Classes, Student-Teachers, Students in Training as intending Teachers in Elementary Schools, or as intending Teachers of Domestic Subjects, may not be presented for Examinations in Art except with the express approval of the Board obtained beforehand.

4. A fee of 1s. 6d. is payable to the Board for each paper applied for in Stage 1 of Design.

5.—(a) Candidates successful in an Examination in Art will, as a rule, be classed as having passed (i) in the "First Class," or (ii) in the "Second Class"; but those who pass in Drawing from Life, Modelling from Life, or Architectural Design, will be classed as (i) "Excellent," or as having passed (ii) in the "First Class," or (iii) in the "Second Class."

5.—(cont.)

(b) Result Lists of the Examinations will be issued by the Board.

(c) A Certificate will be issued for each candidate who obtains a success in an Examination in Art.

(d) A small number of King's Prizes of books, instruments, &c. may be given to students who do best at the Examinations in Art.

GENERAL EXAMINATIONS IN SCIENCE AND TECHNOLOGY.

6.—(a) General Examinations in Science and Technology are held in the subjects stated below. The Examinations in the several subjects are separate and independent, but the subjects are grouped for the purpose of constituting Examining Committees dealing with related subjects.

Group A.—Pure and Applied Mathematics.

1. Practical Geometry and Graphics.
2. Pure Mathematics.
3. Practical Mathematics.
4. Theoretical Mechanics (Solids).
5. Theoretical Mechanics (Fluids).

Group B.—Engineering.

6. Machine Construction and Drawing.
7. Applied Mechanics (Materials and Structures).
8. Applied Mechanics (Machines and Hydraulics).
9. Heat Engines.
10. Building Construction.
11. Naval Architecture.

Group C.—Physics.

12. Heat.
13. Magnetism and Electricity.

Group D.—Chemistry.

14. Inorganic Chemistry.
15. Organic Chemistry.

Group E.—Coal Mining and Metallurgy.

16. Coal Mining.
17. Metallurgy.

6.—(cont.)

(b) In each subject there is a Lower Examination and a Higher Examination.

(c) The Examinations will be based upon the syllabuses contained in the volume of "Syllabuses of Science and Technology for 1911-12, applicable to Technical Schools, &c."

(d) The days and hours of the Examinations are shown in the corrected Time Table (*see the Appendix*).

7.—(a) The General Examinations in Science and Technology are intended for Students who have been registered during the school year in Part-Time or Short Full-Time Courses recognised under the Board's Regulations for Technical Schools, &c., or under the Statement of Grants available in aid of Technological and Professional work in Universities.

(b) Students who have been registered during the school year in which the Examination falls in Full-Time Courses covering more than a year at an Institution recognised under the Board's Regulations for Technical Schools, &c., or under the Statement of Grants available in aid of Technological and Professional work in Universities, may not attend these Examinations, except with the express approval of the Board obtained beforehand.

(c) Other persons may be admitted, under the conditions set out in Regulation 24, as "External" candidates, provided that in the case of Pupil-Teachers, Pupils in Preparatory Classes, Student-Teachers, Students in Training as intending Teachers in Elementary Schools, and Students in Training as intending Teachers of Domestic subjects, the express approval of the Board has been obtained beforehand.

8. No candidate who is under 17 years of age on the 31st July 1912 is eligible for admission to the General Examinations in 1912.

9.—(a) A fee of 3s. 6d. is payable for each paper applied for in each stage of each subject.

(b) A candidate in a Competition for Scholarships, &c. (*see Regulation 13 (b)*) who offers in the Competition Stage 2 of a subject in which a General Examination is held will take a paper identical with that set in the Lower Examination. The candidate will, however, not be accepted also as a candidate in the General Examination in the subject unless he satisfies all the conditions, including the payment of the fee of 3s. 6d.

10. A candidate for admission to the Higher Examinations in any of the following subjects of Science, viz. :—

Theoretical Mechanics (Solids),
 Theoretical Mechanics (Fluids),
 Applied Mechanics (Materials and Structures),
 Applied Mechanics (Machines and Hydraulics),
 Heat Engines,
 Heat,
 Magnetism and Electricity,
 Inorganic Chemistry,
 Metallurgy,

will be required to furnish a certificate of having completed a satisfactory amount of laboratory work, and to submit his laboratory note-books, signed and certified by the teacher.

N.B.—For the year 1912 this requirement will not be brought into operation.

11.—(a) The Board will issue Result Lists for each Examination. There will be no classification of the successful candidates in the Lower Examinations, but candidates who are successful in a Higher Examination will be classed as (i) having passed the Examination, or (ii) having passed the Examination with distinction.

(b) No result will be announced for a candidate who takes a Scholarship Examination identical with a Lower Examination, unless the candidate has satisfied all the conditions of admission to the General Examination including the payment of the fee of 3s. 6d.

(c) Candidates who are successful in the General Examinations held in 1912 will receive Certificates, but this provision will not necessarily apply to the Examinations held in 1913 and subsequently.

(d) The General Examinations will not be available for the determination of the award of any Scholarship, Exhibition, or Studentship to which the "Regulations for Scholarships, Exhibitions, &c. in Science, 1912," are applicable.

(e) The General Examinations will only be available for the determination of the awards of other Scholarships, Prizes, &c., if the following conditions are satisfied :—

- (i) The scheme of the competition must be submitted to the Board not later than the 1st of May and must be approved by them.
- (ii) The promoters of the competition must undertake to meet the expenses of a special revision of the exercises worked in the competitions.

SPECIAL EXAMINATIONS OPEN ONLY TO COMPETITORS FOR AWARDS.

12. In the following subjects—

English,
Mathematics,
Mechanics (Solids and Fluids),
Chemistry,
Sound, Light and Heat,
Magnetism and Electricity,
Freehand Drawing,

it may be necessary to hold Qualifying Examinations for competitors for Royal Scholarships and Free Studentships. (*See* Paragraph 6 of the Regulations for Scholarships, Exhibitions, &c. in Science, 1912.) The days and hours of these Examinations are shown in the corrected Time-Table (*see the* Appendix).

13.—(a) In the subjects named in Paragraphs 7 to 11 of the Regulations for Scholarships, Exhibitions, &c. in Science, 1912, and in Practical Plane and Solid Geometry, Competitive Examinations will be held for candidates in the competitions for Scholarships, Exhibitions, &c.

(b) The papers set for the Competitive Examinations in Stage 2 of subjects in which a General Examination is held will be identical with those set for the Lower Examinations (Regulations 6 (b) and (c)). The Scholarship Papers in other Stages of those subjects, and in all Stages of other subjects, will be based upon the syllabuses contained in the volume of "Syllabuses applicable to Technical Schools, Schools of Art, &c. for 1910–11."

(c) The days and hours of these Competitive Examinations are shown on the corrected Time-Table (*see the* Appendix).

14. The Examinations mentioned in Regulation 12, and the Examinations mentioned in Regulation 13 (so far as they are not identical with Lower Examinations forming part of the General Examinations in Science and Technology) are open only to competitors for Scholarships, Exhibitions, &c. Reference should be made to the separately published Regulations for Scholarships, Exhibitions, &c. 1912, for particulars of the competitions.

LOCAL MANAGEMENT OF EXAMINATIONS.

15. The Qualifying Examinations for Competitors for Scholarships, &c., so far as they may be required, are held under special arrangements.

16. The Examinations in Art, the General Examinations in Science and Technology, and the Competitive Examinations for Scholarships, &c. will be held under the following Regulations as to local management.

17. For the local management of the Examinations mentioned in Regulation 16 the Board recognise—

- (1) Special Local Secretaries and Assistants ;
- or (2) Special Paid Superintendents ;
- or (3) Managers of Schools or Classes.

18.—(a) Where numerous Examinations have to be held, or where large Schools or Classes have to be examined, the Board may require the appointment of a Special Local Secretary to manage the whole business of the Examinations.

(b) The Special Local Secretary may be appointed by the Board on the nomination of a County or County Borough Council.

(c) Assistants are appointed by the Board to act as Superintendents at the examinations on the nomination of the Special Local Secretary. Persons so nominated must be qualified by their position or occupation to perform the duties of this office satisfactorily.

(d) Candidates for Examinations, their relatives, their teachers, or other persons who have a direct interest in the success of a candidate, are ineligible to act as Special Local Secretaries or Assistants for the district in which the candidates are to be examined.

(e) When a Special Local Secretary has been appointed, the Board will, as a rule, correspond with him alone on all subjects connected with the Examinations. He must arrange for holding the Examinations at convenient Centres, subject to the approval of the Board, the number of these Centres being as few as possible. As he is charged with the general supervision of the Examinations, he may not, except in an emergency, act in the place of an Assistant on any occasion on which there is an Examination at more than one Centre.

18.—(*cont.*)

(*f*) The Special Local Secretary must forward to the Board, not later than the 31st March, the fees of the candidates (*see* Regulation 22). The Special Local Secretary should refuse to provide accommodation for any candidate in respect of whom application has not been made by the prescribed dates (*see* Regulations 22, 23, and 24).

19.—(*a*) The Special Local Secretary will be entitled to payment for the services of himself and his Assistants from a fund to which the Board will contribute after receiving a certificate on the prescribed form. This contribution will be one-half the whole expense of supervising the Examinations on the scale laid down, or two shillings and sixpence for each exercise worked at the Examinations (exclusive of exercises in Stage 1 of Design), whichever is the less.

(*b*) The financial arrangements of the Examinations are, subject to the Regulations of the Board, entirely under the control of the body by which the Special Local Secretary is nominated, to which body he is required to submit his accounts. The Special Local Secretary shall account for the fees paid by external candidates for examination to the nominating body, who must apply them towards providing the amount required from the locality for examination expenses to meet the grant given by the Board. Each School having students for examination may be required by the Special Local Secretary to pay its contribution prior to the time of the Examination; the students of any School from which such contribution has been so required, but has not been received, may be excluded from the Examination.

(*c*) The Special Local Secretary is allowed a fee of half a guinea for each morning, afternoon, or evening on which an Examination is held in his district, and also allowed a fee of half a guinea for every 75 papers worked at the Examinations. When he acts in place of an Assistant he will receive no additional fee for so acting.

(*d*) For attendance throughout an Examination not exceeding four hours, each assistant is allowed a fee of half a guinea. Where that period is exceeded, an additional fee of three shillings and sixpence for each additional hour or fraction of an hour is allowed up to a maximum total fee of one guinea.

(*e*) The Board will not contribute to these fees in respect of Examinations in Stage 1 of Design. The cost

19. (e)—(cont.)

of any additional Superintendents necessitated by the presence of candidates in this Stage must be defrayed wholly from local sources. When the Examination in Stage 1 is held in the same room with an Examination in Stage 2 or Honours, the same Superintendents may supervise both Examinations, provided that their number is sufficient, on the scale prescribed by Regulation 27, for the supervision of all the Candidates in the room.

20.—(a) Where a County or County Borough Council accepts responsibility for managing Examinations for which no Special Local Secretary is appointed, and for which it is not possible to adopt the provisions of Regulation 21, it may, subject to the Board's approval, nominate Special Paid Superintendents to manage them. Other Managers of a School may nominate Superintendents for the Examinations in Painting from Still Life or Casting. Superintendents appointed under this Regulation will be entitled to payment at the rates allowed to Special Local Secretaries' Assistants, and will, so far as they apply, be subject to the Regulations for such assistants. A contribution will be made by the Board in these cases under the conditions laid down in Regulation 19.

(b) The nomination of Superintendents under this Regulation must be sent to the Board not later than 15th March.

21.—(a) Where no Special Local Secretary or Special Paid Superintendent is appointed, the management of the Examination devolves upon the Managers of the School or Class requiring Examination, and the Board will recognise their Correspondent as Examination Secretary. Candidates for examination, their relatives, their teachers, or other persons who have a direct interest in the success of a candidate, are ineligible to act as Examination Secretaries or Superintendents of Examinations.

(b) Where two or more Schools or Classes, within reasonable distance of one another, require simultaneous examination, the Board may call upon their Managers to appoint one of themselves as the Examination Secretary, and he must make arrangements for the Examination in question to be held at a common centre.

(c) No payment is made by the Board in aid of the management or conduct of any Examination to which this Regulation applies.

22.—(a) Managers must apply for Examination Papers on the prescribed form not later than the 20th March. This application must be made to the Special Local Secretary, where one has been appointed, and in other cases to the Board.

(b) The Board cannot undertake to entertain late or irregular applications.

(c) The application for papers must be accompanied by a remittance for the amount of fees payable, viz. :—

1s. 6d. for each paper applied for in Stage 1 of Design, and 3s. 6d. for each paper applied for in any subject of the General Examinations in Science and Technology.

(d) No fee will be payable for a competitor in respect of any of the Special Scholarship Examinations taken in the competition for Scholarships, Exhibitions, &c., except in the particular case provided for in Regulation 9 (b).

23. Where less than four candidates are presented for examination in one place, the Board may require the candidates to go to a neighbouring centre.

24. The admission of External Candidates (*see* Regulation 3 (b) and 7 (c)) to Examinations is subject to the following conditions :—

(a) Special Local Secretaries, or Managers who have arranged for the holding of Examinations in Practical Inorganic Chemistry, Practical Organic Chemistry, Practical Metallurgy, Drawing from Life, Architectural Design, or Modelling, may decline to admit External Candidates, or may admit them on such terms as they may think fit.

(b) Admission to other Examinations must be granted to External Candidates who have made due application, and have tendered the charge authorised by this Regulation, and are otherwise eligible.

(c) Application for admission to the Examinations must be made to the Special Local Secretary, where one has been appointed, or to the Correspondent of the Managers undertaking the Examinations, by the 18th March.

24.—(cont.)

(d)—(i) An External Candidate may be required to pay a charge* not exceeding 2s. 6d. for each morning, afternoon, or evening of each Examination for which his name is registered. This charge is in addition to any examination fee payable to the Board (*see* Regulations 4, 9 (a) and 22).

(ii) The limitation of the charge to 2s. 6d. will not apply in the case where it is decided by the Special Local Secretary, or the Managers, to admit External Candidates to an Examination in Practical Inorganic Chemistry, Practical Organic Chemistry, Practical Metallurgy, Drawing from Life, Architectural Design, or Modelling.

25.—(a) The Examination Papers will be forwarded to the Special Local Secretary, or to the Examination Secretary, as the case may be, who will be responsible for their safe custody and distribution. The packets of Examination Papers must not in any circumstances be permitted to pass into the hands of a teacher, or of a candidate for examination, or of any other person interested in the success of a candidate.

(b) All possible care is taken to forward the Examination Papers in accordance with the applications, and to issue the results correctly, but the Board cannot undertake to rectify mistakes, nor will they be responsible for incidental loss.

EXAMINATION ARRANGEMENTS.

26.—(a) Examinations should only be held in rooms which are adequately lighted. The rooms should have level floors and be without galleries, and should as a rule be such as to accommodate candidates so that they may be seated not less than five feet apart from centre to centre.

(b) Examinations in Practical Chemistry (Inorganic and Organic) and in Practical Metallurgy (*see* Regulation 13) may be held only in Laboratories approved by the Board.

* The question whether any charge, and if so what charge, may be required of External Candidates as a condition of admission to these Examinations in 1913 and subsequently, is under consideration.

27. In each room in which an Examination is held provision of Superintendents must be made on the following scale :—

- For 30 candidates or less - One Superintendent.
- For 31 to 70 candidates - Two Superintendents.
- For 71 or more candidates - Three Superintendents.

28. For Examinations in Practical Chemistry or Practical Metallurgy there must be two Superintendents for 30 candidates or any smaller number.

29. Where a large room is divided into sections each separate section must be treated as a separate room. An additional Superintendent must be provided in any L shaped or T shaped room.

30. Detailed Instructions for the conduct and superintendence of Examinations will be issued in due course to Special Local Secretaries and to Managers who have applied for Examinations.

31.—(a) The Board may disallow an Examination where there has been a breach of the Instructions referred to in the last Regulation, or where there is evidence of fraud. They will investigate cases of suspected irregularity, and may require any or all of the candidates to be re-examined. If any candidate should fail to appear at such, investigation, or decline to be re-examined, the Board may refuse to announce any results in respect of the Examinations taken by him in the same year, or if any results have been announced may cancel them.

(b) When a re-examination is necessary owing to the failure of an Examination through no fault of the candidates, the cost of such re-examination may be charged to the Special Local Secretary, or to the Managers.

(c) A re-examination will not be accepted for the purposes of the Competition for Scholarships, Exhibitions, &c.

L. A. SELBY-BIGGE.

7th March 1912.

APPENDIX.

Corrected Time Table of Examinations in 1912.

[N.B.—This Time Table differs slightly from that originally published in Form 90. T. The changes which have been made affect, however, only the Examinations in Modelling from the Antique and Modelling Design (Honours).]

Form 90. T.
(Revised).

N.B.—The question of the time of the year when the Examinations will be held after 1912 is under the consideration of the Board.

TIME TABLE OF EXAMINATIONS IN ART, AND IN SCIENCE AND TECHNOLOGY, 1912.

The Time Table of Examinations is in two Divisions, namely, (1) Examinations in Art, and (2) Examinations in Science and Technology. The Science and Technology Time Table is divided into two Parts:—Part I., General Examinations, and Part II., Scholarships Examinations. Part II. is further divided into (a) the Time Table for the Qualifying Examinations for Royal Scholarships and Free Studentships; and (b) the Time Table for the Competitive Examinations for Scholarships, Exhibitions, and Studentships, &c.

ART.

1912.

4th May, Saturday -	7 to 9.30 p.m.	FREEHAND DRAWING in Outline.
	7 to 9 p.m.	DRAWING OF COMMON OBJECTS FROM MEMORY.
6th „ Monday -	6 to 10 p.m.	DESIGN, Stage 1, Stage 2, and Honours. Mathematical instruments may be used. Candidates may not bring tracing paper with them. Any tracing paper required by them may be obtained in the Examination room.
7th „ Tuesday -	7 to 9.30 p.m.	MODEL DRAWING.
8th „ Wednesday	10 a.m. to 4 p.m.	PAINTING FROM STILL LIFE.
	(See Note, p. 19) 7 to 9 p.m.	DRAWING THE ANTIQUE FROM MEMORY.

(Continued over)

1912.

ART.

9th May, Thursday	7 to 10 p.m.	HISTORIC ORNAMENT. Mathematical instruments may be used. Candidates may not bring tracing paper with them. Any tracing paper required by them may be obtained in the Examination room.
10th „ Friday	- 7 to 10 p.m.	DRAWING IN LIGHT AND SHADE from a Cast.
11th „ Saturday	- 5 hours (between 10 a.m. & 10 p.m.).	DRAWING FROM LIFE.—Three hours are allowed for the drawing from the model, one hour for an interval, and one hour for the drawing from memory. (<i>The five hours must be consecutive and the same for all Candidates attending at the Centre.</i>)
13th „ Monday	- 7 to 10 p.m.	PRINCIPLES OF ORNAMENT. Mathematical instruments may be used. Candidates may not bring tracing paper with them. Any tracing paper required by them may be obtained in the Examination room.
14th „ Tuesday	- 7 to 9 p.m.	MEMORY DRAWING OF PLANT FORM.
15th „ Wednesday	6 to 10 p.m.	DRAWING FROM THE ANTIQUE. This Examination may be taken only in Schools provided with at least four full-sized figures.
16th „ Thursday	{ 6 to 7.30 p.m. 8 to 10 p.m.	GEOMETRICAL DRAWING.
17th „ Friday	- 7 to 10 p.m.	PERSPECTIVE. Mathematical instruments required.
18th „ Saturday	- 6 to 10 p.m.	ANATOMY.
		ARCHITECTURE. Mathematical instruments may be used. Candidates may not bring any tracing paper with them. Any tracing paper required by them may be obtained in the Examination room.
20th „ Monday	- 6 to 10 p.m.	PAINTING ORNAMENT. Candidates may not bring any tracing paper with them. Any tracing paper required by them may be obtained in the Examination room.
21st „ Tuesday	{ 4 to 10 p.m. (Each evening.)	ARCHITECTURAL DESIGN. Mathematical instruments required.
23rd „ Thursday	(See Note, p. 19.)	
3rd June, Monday	{ 6.30 to 10 p.m. (Each evening.)	*MODELLING DESIGN (Honours).
6th „ Thursday	{	
and an		
7th „ Friday	{ 8 hours. (See Note, p. 19.)	For Candidates to CAST THEIR CLAY MODELS.
or		
8th „ Saturday	{	

* These examinations are limited to candidates who are prepared to make Casts of their Models. Candidates are required to cast their Clay Models on the specified dates (see Time Table above), and must provide their own modelling tools. Clay for modelling and plaster for casting will be provided at the Centres.

1912.

ART.

6th June, Thursday	}	6.30 to 10 p.m. (Each evening.)	*MODELLING DESIGN (Stage 2).
and 7th „ Friday			
and 8th „ Saturday		8 hours.	
		(See <i>Note</i> below.)	For Candidates to CAST THEIR CLAY MODELS.
10th „ Monday	}	6.30 to 10 p.m. (Each evening.)	*MODELLING FROM LIFE.
to 14th „ Friday			
and 15th „ Saturday		10 hours.	
		(See <i>Note</i> below.)	For Candidates to CAST THEIR CLAY MODELS.
18th „ Tuesday	}	6.30 to 10 p.m. (Each evening.)	*MODELLING FROM THE ANTIQUE.
to 21st „ Friday			
and 22nd „ Saturday		8 hours.	
		(See <i>Note</i> below.)	For Candidates to CAST THEIR CLAY MODELS.
20th „ Thursday	}	6 to 10 p.m.	*MODELLING THE HEAD FROM LIFE.
and 21st „ Friday			
or 22nd „ Saturday		8 hours.	
		(See <i>Note</i> below.)	For Candidates to CAST THEIR CLAY MODELS.

Note.—On the 8th, 21st, 22nd, and 23rd May the six hours include half an hour for refreshment. On the 8th May the half hour must be taken by all candidates from 1 to 1.30 p.m. On the other dates the half hour must be taken by all candidates from 7 to 7.30 p.m.

The hours for Casting on the 8th, 15th, and 21st or 22nd June must be the same for all candidates attending at the same Centre, and may be taken on those dates as convenient, in accordance with the notification of the time which is to be sent to the Board. The Board will consider applications for permission to substitute other dates for the Casting at any particular Centre, provided that such exceptional circumstances can be shown to exist as would justify such substitution.

SCIENCE AND TECHNOLOGY.**PART I.—GENERAL EXAMINATIONS.**

In each subject there will be a “Lower” and a “Higher” Examination.
See the special note as to Pure Mathematics.

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3rd May, Friday	- 7 to 10 p.m.	{ ORGANIC CHEMISTRY. METALLURGY.
9th „ Thursday	7 to 10 p.m.	PRACTICAL MATHEMATICS. Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers.
10th „ Friday	- 7 to 10 p.m.	INORGANIC CHEMISTRY.

(Continued over)

* These examinations are limited to candidates who are prepared to make Casts of their Models. Candidates are required to cast their Clay Models on the specified dates (see Time Table above), and must provide their own modelling tools. Clay for modelling and plaster for casting will be provided at the Centres.

1912.

SCIENCE AND TECHNOLOGY.

11th May, Saturday -	{ 6 to 10 p.m.	†PRACTICAL GEOMETRY AND GRAPHICS. Sets of scales (<i>see</i> Syllabus of subject) and a protractor will be required. Slide Rules may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates will be issued with the examination papers.
13th „ Monday -	{ 7 to 10 p.m. 7 to 10 p.m.	† This subject is identical with that described as Practical Plane and Solid Geometry in Circular 776. COAL MINING.
14th „ Tuesday -	7 to 10 p.m.	THEORETICAL MECHANICS (SOLIDS). Compasses, a scale of equal parts, and a protractor will be required.
15th „ Wednesday	7 to 10 p.m.	APPLIED MECHANICS (MATERIALS AND STRUCTURES). Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers.
16th „ Thursday	7 to 10 p.m.	HEAT ENGINES. Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers. A temperature-entropy diagram will be issued to each candidate.
17th „ Friday -	7 to 10 p.m.	THEORETICAL MECHANICS (FLUIDS). Compasses, a scale of equal parts and a protractor will be required.
18th „ Saturday -	6 to 10 p.m.	HEAT. MACHINE CONSTRUCTION AND DRAWING. Indian ink, and scales (<i>see</i> Syllabus of subject) will be required. Slide Rules may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates will be issued with the Higher examination papers.
20th „ Monday -	7 to 10 p.m.	MAGNETISM AND ELECTRICITY.
21st „ Tuesday -	7 to 10 p.m.	PURE MATHEMATICS, LOWER AND HIGHER—Paper I.* Compasses, a straight edge with a scale of equal parts, and a protractor will be required.
22nd „ Wednesday	7 to 10 p.m.	PURE MATHEMATICS HIGHER—Paper II.* Compasses, a straight edge with a scale of equal parts, and a protractor will be required.
23rd „ Thursday	6 to 10 p.m.	{ BUILDING CONSTRUCTION. Drawing Instruments (<i>see</i> Syllabus of subject) and Indian ink will be required. Slide Rules, scales, and protractors may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates will be issued with the Higher examination papers. NAVAL ARCHITECTURE. Scales, Set Squares, and Ship Curves will be required (<i>see</i> Syllabus of subject). Slide Rules may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates will be issued with the examination papers.

* These two papers constitute the "Higher" Examination in Pure Mathematics. No candidate will be adjudged to have passed this examination who does not reach the necessary standard in both papers.

1912.

SCIENCE AND TECHNOLOGY.

24th May, Friday - 7 to 10 p.m.

**APPLIED MECHANICS
(MACHINES AND HYDRAULICS).**

Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers.

PART II.—SCHOLARSHIPS EXAMINATIONS.

These Examinations are open only to Competitors for Scholarships, Exhibitions, and Studentships under the "Regulations for Scholarships, Exhibitions, &c. in Science, for the year 1912." The conditions of the Competitions for these Awards are stated in those Regulations.

(a) Qualifying Examinations for Royal Scholarships and Free Studentships.

1912.		p.m.	
25th March, Monday		7 to 9.30	FREEHAND DRAWING.
26th	„ Tuesday	{ 6 to 8 8 to 10	{ ENGLISH.
27th	„ Wednesday	7 to 10	MECHANICS (SOLIDS).
28th	„ Thursday	7 to 10	MECHANICS (FLUIDS).
29th	„ Friday	7 to 10	SOUND, LIGHT AND HEAT.
30th	„ Saturday	7 to 10	MAGNETISM AND ELECTRICITY.
1st April, Monday		7 to 10	CHEMISTRY.
2nd	„ Tuesday	7 to 10	MATHEMATICS.

(b) Competitive Examinations for Scholarships, Exhibitions, Studentships, &c.

The paper set in the "Stage 2" Examination in any subject in which a General Examination is held, will be identical with that set in the "Lower" Examination.

1912.		p.m.	
3rd May, Friday	- 7 to 10	{	THEORETICAL ORGANIC CHEMISTRY, Stage 2 and Stage 3.
			THEORETICAL METALLURGY, Stage 2 and Stage 3, and the written examination in Honours of Metallurgy.
6th	„ Monday - 2 to 10		PRACTICAL METALLURGY. Stage 3, 2 to 10. Stage 2, 5 to 10. The use of note-books, text-books, or works of reference is permitted.
7th	„ Tuesday - 7 to 10	{	LIGHT, Stage 2, Stage 3, and Honours. MINERALOGY, Stage 2, Stage 3, and Honours. This examination will include practical blow-pipe analysis. Apparatus, &c. will be required. (See Syllabus of subject.)

(Continued over)

(b) COMPETITIVE EXAMINATIONS FOR SCHOLARSHIPS, EXHIBITIONS, STUDENTSHIPS, &c.—*continued.*

1912.

p.m.

8th May, Wednesday	{ 2.30 to 10.30	{	PRACTICAL INORGANIC CHEMISTRY. Stage 3 - 2.30 to 10.30. The use of note-books, text-books, or works of reference is permitted.
			Stage 2 - { Written, 5.15 to 6.15. Practical, 6.30 to 10.30. The use of note-books, text-books, or works of reference is permitted during the practical part of the examination in the laboratory.
9th „ Thursday	- 7 to 10		PRACTICAL MATHEMATICS, Stage 2 and Stage 3. Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers.
10th „ Friday	- 7 to 10		THEORETICAL INORGANIC CHEMISTRY, Stage 2, Stage 3, and Honours of Organic and Inorganic Chemistry.
11th „ Saturday	{ 2.30 to 10.30	{	PRACTICAL ORGANIC CHEMISTRY. Stage 3 - 2.30 to 10.30. The use of note-books, text-books, or works of reference is permitted.
			Stage 2 - { Written, 6 to 7. Practical, 7.15 to 10.30. The use of note-books, text-books, or works of reference is permitted during the practical part of the examination in the laboratory.
11th „ Saturday	- 6 to 10		PRACTICAL PLANE AND SOLID GEOMETRY, Stage 2, § Stage 3, and Honours. Sets of scales (<i>see</i> Syllabus of subject) and a protractor will be required. Slide Rules may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates will be issued with the examination papers. § This Examination is identical with the "Lower" Examination in Practical Geometry and Graphics.
13th „ Monday	- 7 to 10		THEORETICAL MECHANICS (SOLIDS), Stage 2, Stage 3, and HONOURS IN THEORETICAL MECHANICS (SOLIDS AND FLUIDS). Compasses, a scale of equal parts, and a protractor will be required.
14th „ Tuesday	{ 7 to 10	{	APPLIED MECHANICS (MATERIALS AND STRUCTURES), Stage 2, Stage 3, and HONOURS IN APPLIED MECHANICS (MATERIALS AND STRUCTURES, AND MACHINES AND HYDRAULICS). Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers.
			HUMAN PHYSIOLOGY, Stage 2, Stage 3, and Honours. A microscope will be required by candidates in Stage 3.

(b) COMPETITIVE EXAMINATIONS FOR SCHOLARSHIPS, EXHIBITIONS, STUDENTSHIPS, &c.—*continued.*

1912.

p.m.

15th May, Wednesday	7 to 10	HEAT ENGINES, Stage 2, Stage 3, and Honours. Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers. A temperature-entropy diagram will be issued to each candidate.
		GEOLOGY, Stage 2, Stage 3, and Honours.
16th „ Thursday	7 to 10	THEORETICAL MECHANICS (FLUIDS), Stage 2 and Stage 3. Compasses, a scale of equal parts, and a protractor will be required.
		ZOOLOGY, Stage 2, Stage 3, and Honours. A microscope may be required by candidates in Stage 3.
17th „ Friday	7 to 10	HEAT, Stage 2, Stage 3, and Honours.
	6 to 9	GENERAL BIOLOGY, Stage 2.
18th „ Saturday	6 to 10	MACHINE CONSTRUCTION AND DRAWING, Stage 2, Stage 3, and Honours. Indian ink and scales (<i>see</i> Syllabus of subject) will be required. Slide Rules may be used. Candidates in Honours may use their own note-books. Tracing paper will be supplied. Mathematical Tables for the use of candidates in Stage 3 and Honours will be issued with the examination papers.
20th „ Monday	7 to 10	MAGNETISM AND ELECTRICITY, Stage 2, Stage 3, and Honours.
21st „ Tuesday	7 to 10	PURE MATHEMATICS, Stages 2, 3, 4, and Honours in Division I. Compasses, a straight edge with a scale of equal parts, and a protractor will be required.
22nd „ Wednesday	7 to 10	PURE MATHEMATICS, Stages 5, 6, 7, and Honours in Division II. Compasses, a straight edge with a scale of equal parts, and a protractor will be required.
		BOTANY, Stage 2, Stage 3, and Honours.
23rd „ Thursday	6 to 10	BUILDING CONSTRUCTION, Stage 2, Stage 3, and Honours. Drawing instruments (<i>see</i> Syllabus of subject) and Indian ink will be required. Slide Rules, scales, and protractors may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates in Stage 3 and Honours will be issued with the examination papers.
		NAVAL ARCHITECTURE, Stage 2, Stage 3, and Honours. Scales, Set Squares, and Ship Curves will be required (<i>see</i> Syllabus of subject). Slide Rules may be used. Tracing paper will be supplied. Mathematical Tables for the use of candidates will be issued with the examination papers.
24th „ Friday	7 to 10	APPLIED MECHANICS (MACHINES AND HYDRAULICS), Stage 2 and Stage 3. Slide Rules may be used. Mathematical Tables for the use of candidates will be issued with the examination papers.

(Continued over)

(b) COMPETITIVE EXAMINATIONS FOR SCHOLARSHIPS, EXHIBITIONS,
STUDENTSIPS, &c.—*continued.*

1912.

p.m.

25th May, Saturday - 7 to 10 SOUND, Stage 2, Stage 3, and Honours.
PRACTICAL INORGANIC AND ORGANIC
CHEMISTRY, Honours.

This examination will be held after the close
of the above series of examinations, and will
extend over three or more days. The precise
dates and place of examination will be
announced in due course.

NOTE.—In Science subjects in which the Honours Examination (*see* Syllabuses in
the Syllabus Volume, 1910-11) includes both a written and a practical test, the
examination papers to be set on the above dates will contain the questions for the
written (Paper I.) examination only. The dates of the practical examinations, which
will be held at South Kensington or some other Centre, will be communicated to
qualified candidates in due course.



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